This invention relates to bed rail fasteners.

The object is to provide simple and cheaply manufactured means that may be readily incorporated in the structure of beds, whereby the rails of the same may be easily and quickly connected at either end to the bed posts to form a strong and rigid union for supporting the weight imposed thereon and to maintain the head and foot of the bed in rigid, upright position without any rocking or wobbling movement or rattling of the same.

Another object is to provide a strong and durable means for attaching a bed rail to a bed post in a manner to provide a relatively broad upper surface for supporting a bed spring having a separate, rigid frame, such as in common use, or to attach same in a reversed position to provide an inwardly directed seat for the reception of old fashioned bed slats where it is desired to use the latter, there being no change, adjustment or alteration necessary for the latter use.

A full and complete understanding of the invention may be obtained from a consideration of the following detailed description, taken in connection with the accompanying drawing forming a part of this specification, it being understood that while the drawing shows a practical form of the invention, the latter is not to be confined to strict conformity with the showing thereof, but may be changed or modified, so long as such changes or modifications mark no material departure from the salient features of the invention, as specifically pointed out in the appended claims.

In the drawing, in which similar reference characters designate corresponding parts throughout the several figures:

Figure 1 is a perspective view of a portion of a bed post and rail constructed in accordance with the present invention, the rail being shown separated from the post.

Figure 2 is a similar view, the parts being locked together, in a position to form a base or support for an ordinary form of bed spring frame.

Figure 3 is a vertical section through the assembled parts.

Figure 4 is a view similar to Figure 2, but showing the bed rail attached to form a seat for bed slats.

In the drawing there is shown a bed post 1 of the tubular form in general use, the same having the usual caster 2 suitably attached to the lower end thereof, and also having the usual lower cross bar 3 in connection therewith which joins the two bed posts of the head or the foot of the bed together.

In the present invention the said lower cross bar 3 is attached to a face plate 4 by means of rivets 5, and the said plate is, in turn, connected to the post by upper and lower rivets 6 passing through the adjacent wall only of the tubular post, as shown in Figure 3 of the drawing.

The lower cross bar 3 is preferably formed of a suitable size of angle iron having its vertically disposed flange attached to the plate, as before stated, and having its horizontal flange extending inwardly therefrom toward the center of the bed to form a positive rest and support for the end of the bed rail, in a manner to be described.

At a point opposite to the center of the bed post 1, there is mounted an upstanding stud 7 which has its lower end reduced and passed through a suitable aperture formed in the horizontal flange of the angle iron forming the lower cross bar 3, said reduced portion having its lower terminal riveted over against the lower face of said flange, to rigidly hold the stud in position, as shown at 8.

Substantially midway between the upper face of the lower cross bar 3 and the upper end of the face plate 4, there is mounted a horizontally disposed T-head lug 9, the head of the same extending transversely of the plate 4 and the shank 10 of which is preferably square in cross section and has a reduced terminal which is riveted in a corresponding aperture formed in the face plate, as shown at 11 (Fig. 3), so as to prevent the lug from turning and to rigidly secure same in position directly above and in spaced relation to the aforesaid stud 7.

The parts as thus far described are simple in construction and may be easily and cheaply manufactured without any alteration necessary in the bed post except for the provision of the necessary holes for the rivets 6.

The bed rail 12 is likewise formed of angle
iron of somewhat heavier grade than the lower cross bar 3, and said rail has one of its flanges extended beyond the other perpendicular flange and bent down at right angles to form an end wall 13 having one side margin abutting against the adjacent edge of the other angle flange, as indicated at 14, the two abutting parts being suitably welded or otherwise joined together to close the gap and to strengthen the members. The extension of said flange is sufficient to have its terminal portion again bent at right angles beyond the end wall to form a foot plate 15 whose inner, marginal side edge is welded or otherwise joined to the free edge of the other or shorter flange of the angle iron side rail, as shown at 16, so that the entire structure is effectually strengthened and prevented from opening or spreading under load.

The foot plate 15 is provided with a centrally disposed aperture 17 of a size to permit the stud 7 to enter the same, and the shorter flange of the angle iron bed rail is also provided with a similar aperture 18, each of the apertures being located the same distance from the end wall 13. The end wall 13 is provided with a centrally disposed cross-shaped slot having vertical portions 19 and horizontal portions 20 arranged parallel to the edges of the end plate respectively, the combined lengths of the opposed portions being such as to permit the entrance of the T-head lug 9, and the width of each of the portions being substantially equal to the width of the shank 10 of said lug.

When it is desired to assemble the parts of the bedstead for the purpose of supporting bed springs having a rigid, metal frame with certain projecting parts for supporting the same, such as are in common use, the bed rail 19 is positioned, as shown in Figure 1 of the drawing, with the longer flange of the angle iron uppermost and extending inwardly and the foot plate 15 at the bottom of the rail. The horizontally disposed portions 20 of the cross slot will receive the T-head lug therebetween, and the shank of the lug 10, when the rail is depressed, will be seated in the uppermost vertical portion 19 of said slot. At this time the foot plate 15 comes to rest upon the upper face of the lower cross bar 3 and the stud 7 is seated in the aperture 17 of said plate, when the bed rail is fully supported, prevented from any rocking or rotary movement about the axis of the shank of the T-head lug, the same being square, and at the same time the overhanging portions of the T-head lug in engaging the sides of the vertical slot 19 effectually prevent any pulling away of the rail, longitudinally thereof, from the bed post, thus eliminating all wobbling or rocking motion of the latter. When, however, the rail and post are to be assembled for the reception and support of ordinary bed slats, the angle iron comprising said rail is turned so that the shorter flange thereof is at the bottom and the plate 15 is arranged vertically and at the inner side of said rail, as shown in Figure 4 of the drawing, when it will be seen that the lower flange, after the parts are locked in connected relation, as above described, with the studs 7 in the aperture 18, forms a support for the said slats and the outer, vertically disposed flange prevents said slats from endwise movement and also obscures the same from view.

From the foregoing it will be seen that a simple, cheaply manufactured and strong and durable fastening means for bed posts and rails has been provided which permits of the easy locking or unlocking of the same and which also permits the rail to be applied in two different positions for the reception and support of bed springs or a surrounding frame for individual bed slats and that the said joint, when locked together in either position, effectually prevents all relative movement of the connected parts.

What is claimed is:

1. In a bed rail fastener the combination of a bed post having a lower cross bar, a stud mounted on the cross bar, a T-head lug carried by the bed post above the cross bar, and a side rail having an end wall provided with a cross-shaped slot and with a foot plate having an aperture, said rail being adapted to be fitted against the post with the T-head lug extending through the cross-shaped slot and to be depressed with said foot plate resting on said lower cross bar and the stud thereof traversing the aperture in the foot plate.

2. A detachable connector between a bed post and a bed rail, a stud having a vertically disposed stud supported in spaced relation thereto and having a lug mounted on the wall thereof in vertical alignment with and above the stud, said lug having opposite lateral extensions to constitute a head, said bed rail being formed of angle iron having one flange thereof longer than the other and angularly bent to form an end wall, the terminal being again bent to form an inwardly extending foot plate the end wall and foot plate both being marginally welded to the other flange of the angle iron, and the end wall and foot plate having openings to receive and coact with the lug and the stud respectively.

3. In means for detachably connecting a bed rail to a bed post, a face plate connected to the bed post, a transverse, lower cross bar formed of angle iron and connected to the face plate with the horizontal flange of the cross bar located at the top of the latter and extending away from the post, an upstanding stud mounted on said hori-
horizontal flange, an outstanding T-head lug carried by the plate above said stud, a bed rail formed of angle iron and having an end wall provided with a vertically disposed slot having intermediate side extensions adapted to receive the T-head of the lug and permit the shank of the latter to enter the upper portion of the vertical slot when lowered to tie the members together, said end wall having an inwardly extending foot plate provided with an aperture to receive the stud when the rail is lowered, and one flange of the angle iron having a similar aperture.

4. Means for connecting a bed rail to a bed post comprising a plate adapted to be riveted to the post near the lower end thereof and in upright position, a lower cross bar riveted to the plate said bar having an upstanding stud spaced from the plate and opposite the center thereof, a horizontally disposed T-head lug extending out from the plate above the stud, and a bed rail formed of angle iron and having a perpendicular end wall provided with crossed vertical and horizontal slots and also having an integral foot plate parallel to one flange of the angle iron bed rail, said foot plate and the other flange of the angle iron each having an aperture, the slots of the end wall being adapted to receive and lock on the T-head lug with the foot plate resting on the lower cross bar and the stud engaged in the aperture of said foot plate to provide a broad supporting base on top of the bed rail constituted by one flange of the angle iron for the support of an ordinary bed spring frame, and said slots being also adapted to lock with said lug in reverse position with the stud engaging the aperture in the flange at the bottom of the angle iron to provide a seat for ordinary bed slats.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature.

GEORGE FORREST MANSFIELD.